

WHAT IS CLAIMED IS:

1. An antenna device having an antenna element and a ground conductor which work as an antenna, in which the antenna element is fed via an antenna feeding portion and high-frequency current flows to the ground conductor via the antenna feeding portion, the antenna device comprising:

high-frequency current suppressing means being a conductive plate of a predetermined shape which has its one end along one direction connected to the ground conductor to form a short circuit and has its other end electrically opened from the ground conductor,

wherein the high-frequency current suppressing means has slits each extends perpendicular to the one direction.

2. The antenna device as set forth in Claim 1, wherein each of the slits is formed by cutting off a part of the conductive plate from the side to the center thereof.
3. The antenna device as set forth in Claim 1, wherein the slits form an opening slit which is formed by cutting off a part of the conductive plate at a predetermined position thereof.
4. The antenna device as set forth in Claim 1, wherein the slits make the effective length of the conductive plate  $((2n+1)/4)$  times the wavelength of a radio communication frequency, n being a natural number including zero.
5. The antenna device as set forth in Claim 1, wherein the high-frequency

current suppressing means consists of a first conductive plate corresponding to one radio communication frequency and a second conductive plate corresponding to another radio communication frequency.

6. The antenna device as set forth in Claim 5, wherein at least the first conductive plate has slits each formed by cutting off a part of the first conductive plate from the side to the center thereof.

7. The antenna device as set forth in Claim 1, wherein the high-frequency current suppressing means is so arranged as to face a portion of the ground conductor at which, of electromagnetic waves generated when the high-frequency current flows to the ground conductor, those to be absorbed into a human body become maximum.

8. A portable radio communication device which has an antenna device having an antenna element and a ground conductor which work as an antenna, in which the antenna element is fed via an antenna feeding portion and high-frequency current flows to the ground conductor via the antenna feeding portion,

wherein a circuit board for transmitting/receiving signals is shielded by the ground conductor, and

wherein the antenna device comprises high-frequency current suppressing means being a conductive plate of a predetermined shape which has its one end along one direction connected to the ground conductor to form a short circuit and has its other end electrically opened from the ground conductor, the high-frequency

current suppressing means having slits each extends perpendicular to the one direction.

9. The portable radio communication device as set forth in Claim 8, wherein each of the slits is formed by cutting off a part of the conductive plate from the side to the center thereof.

10. The portable radio communication device as set forth in Claim 8, wherein the slits form an opening slit which is formed by cutting off a part of the conductive plate at a predetermined position thereof.

11. The portable radio communication device as set forth in Claim 8, wherein the slits make the effective length of the conductive plate  $((2n+1)/4)$  times the wavelength of a radio communication frequency, n being a natural number including zero..

12. The portable radio communication device as set forth in Claim 8, wherein the high-frequency current suppressing means consists of a first conductive plate corresponding to one radio communication frequency and a second conductive plate corresponding to another radio communication frequency.

13. The portable radio communication device as set forth in Claim 12, wherein at least the first conductive plate has slits each formed by cutting off a part of the first conductive plate from the side to the center thereof.

14. The portable radio communication device as set forth in Claim 8, wherein the high-frequency current suppressing means is so arranged as to face a portion of

the ground conductor at which, of electromagnetic waves generated when the high-frequency current flows to the ground conductor, those to be absorbed into a human body become maximum.

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